

## Re-designing society with digital technology

Fujitsu leverages various business-specific AI technologies, including generative AI, action recognition AI, and demand forecasting, to support the creation of new services and businesses that improve daily convenience and enhance people's abilities and knowledge.

Fujitsu uses a diverse range of AI technologies, including action detection technology with the world's highest recognition accuracy, to support the examination of facility and store policies and business transformation based on quantitative data, rather than relying solely on experience and intuition. It can be used for use cases such as detecting suspicious behavior or tracking people between multiple cameras.

### Service Overview

This solution is an AI-powered solution that performs advanced video analytics. It transforms real-world spatial data relevant to person tracking and human behavior into valuable information, such as improved store operations and identification of dangerous activities. Using AI instead of visually check for data from security cameras and surveillance cameras, efficient and advanced analysis becomes possible.

### Key Benefits

This service maximizes the value of video data while maintaining low costs and privacy considerations, and it continuously supports business transformation.

#### 1 Considerate to privacy



It can be used to analyze age, gender, estimation of attributes such as clothing type and color, and behavioral analysis, even when faces are covered by masks.

#### 2 Use existing cameras



You can use your existing assets; special cameras are not required.(\*1)

#### 3 Gain merchandising insights



Video analytics can clarify business challenges and enable the use of data to develop solutions.

(\*1) Depending on the image quality, angle of view, shooting range, and other conditions of the image to be analyzed, it may be difficult to analyze using only existing camera images.

### Features



#### Behavior Detection AI

A pre-trained model with approximately 100 basic actions enables the recognition of various human behaviors from video footage.



#### Multi-camera tracking

Enables the detection and tracking of the same person across multiple cameras.



#### Generative AI Connector

Enables the identification of potential challenges by using not only structured data but also unstructured data.

# Use Cases

## Real retail store management

### Digitalization of customers' shopping behavior



Get powerful insights on the customers' behavior in retail stores, such as pass-by traffic, reach-out-and-touch behavior, age, gender, and so on.

### Retail operations for the future



Support data-driven store operations, marketing campaigns and promotions, which makes retail stores "smarter".

## Town management

### Congestion management



Ensure safe shopping or walking spaces with real-time congestion data to safely manage retail stores and other facilities.

### Adding values to towns



Provide guidance information and optimized routing of people's flow to improve the quality of service throughout the town.

## Public security / AI-based video analytics

### AI-based video analytics



Identify suspicious individuals by analyzing video data using AI, for safer management of towns and facilities.

### Identifying dangerous behavior



Identify dangerous behavior such as focusing on a smartphone while walking, combined basic human behavior, movement or actions.

### Creating resilient cities



By analyzing images from multiple cameras, the system can support the planning of measures to ensure safe flow lines and for smooth evacuation in the event of a disaster.

## Contact

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# The world's highest-accuracy recognition technology

## Basic action recognition accuracy benchmark: NTU RGB+D(\*2) World's best (2020)

- Recognition of basic movements using skeletal recognition technology.
- Achieved first place in evaluation results on, a de facto standard benchmark site.

## World's best accuracy in person tracking benchmarks(\*3)

- The same authentication of a person can be performed across multiple cameras.
- It has Stable person re-identification technology capable of handling variations in appearance across different cameras.

(\*2) Public dataset used for benchmarking for behavior recognition

(\*3) Multiple Object Tracking Benchmark No.1 (MOT-17, 2023.3, MOT-20,2023.10)

# Recognizes approximately 100 types of basic human actions using a pre-trained AI.

This service provides customers with an AI model that has been pre-trained for approximately 100 basic human actions. You can start video analysis right away by reducing the time and cost required to learn AI, and you can learn additional behaviors.

|                                                                                     |                                                                                     |                                                                                     |                                            |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
| 01 : Stand                                                                          | 02 : Get up                                                                         | 03 : Sit                                                                            | 04 : Tilt one's head to the right          | 05 : Walk                                                                             |
| 06 : Stoop                                                                          | 07 : Lie down                                                                       | 08 : Squat                                                                          | 09 : Fall down                             | 10 : Jump                                                                             |
| 11 : Crawl                                                                          | 12 : On the face                                                                    | 13 : Below the face                                                                 | 14 : Turn one's head to the left           | 15 : Turn one's head to the right                                                     |
| 91 : Touch right ankle with right hand                                              | 92 : Touch left knee with right hand                                                | 93 : Touch right knee with right hand                                               | 94 : Touch left lower back with right hand | 95 : Touch right lower back with right hand                                           |
| 96 : Touch left shoulder with right hand                                            | 97 : Tough right shoulder with right hand                                           | 98 : Tough mouth with right hand                                                    | 99 : Tough left ear with right hand        | 100 : Tough right ear with right hand                                                 |
| 01 : Stand                                                                          | 98 : Raise right hand                                                               | 03 : Sit                                                                            |                                            | 05 : Walk                                                                             |
|  |  |  |                                            |  |

## Easily define complex behaviors

Easily defines complex actions and behaviors through combinations of basic actions.  
Enables action detection focused on individuals.



05 — 03 — 77 — 20 — 20 — 06 → 05

The mother is reaching out and picking up the goods.



17 — 08 — 08 — 15 — 20 — 06 → 33

Someone is crouching in front of the door, touching the keyhole.



23 — 13 — 67 — 05 — 07 — 02 → 15

Backward holding 2 somersaults 1 twist down.

Fujitsu Data Intelligence PaaS

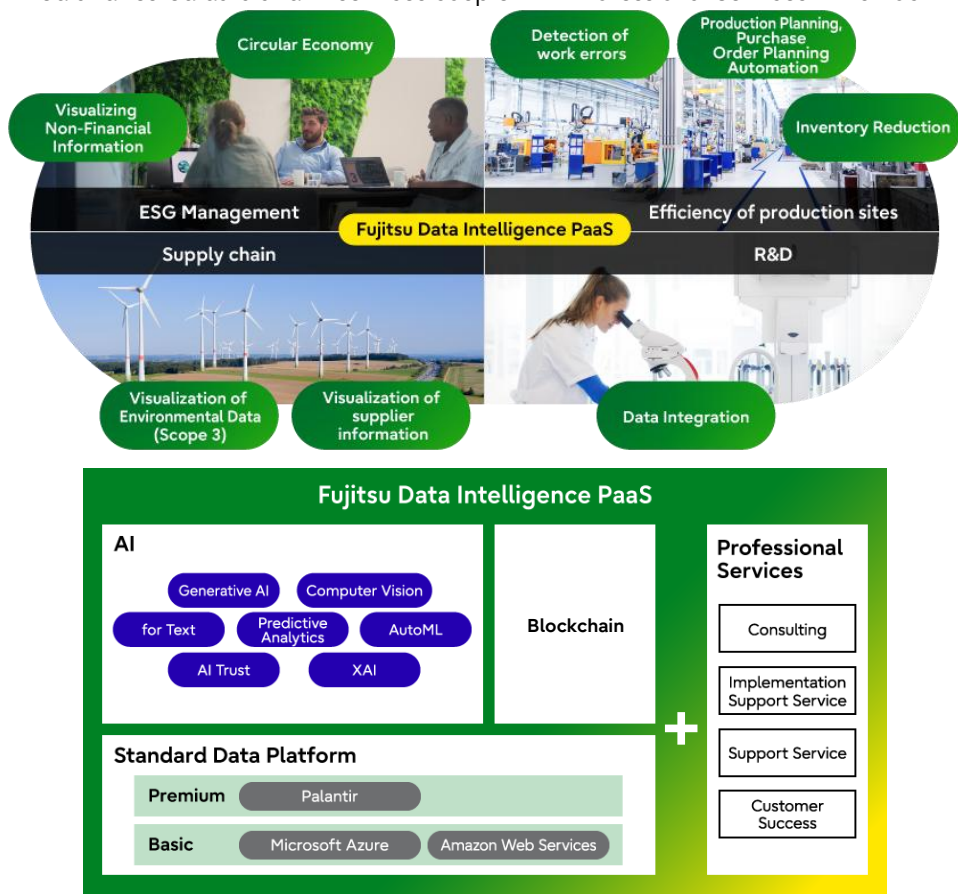
# All-in-one platform unleashing business intelligence potential.

Fujitsu's approach to realizing AI for business

There are a plethora of AI applications that have proven to solve business and society challenges, turning them into opportunities to drive a more sustainable future. And with the advent of generative AI, there was exponential accessibility to boost organization's productivity.

Fujitsu Data Intelligence PaaS (DI PaaS) helps organizations realize AI today to enable faster decision-making. It can be difficult to derive meaningful insights from a vast amounts of data scattered across organizations, but not with DI PaaS.

Our combination of tried and tested data and AI services couple with Professional Services will unlock more possibilities with DI PaaS.



**Data Platform**

All-in one data platform solution based Palantir or Microsoft Azure / Amazon Web Services.

With Palantir can be used not only to integrate, store, and visualize data, but also to create applications used in business operations. And we also provide a platform for analyzing features and data in one package It can quickly provide a combination of templated AI and data analytics functions.

**Blockchain**

We provide platform empowers businesses to navigate the complexities of traceability with confidence. By leveraging blockchain technology, we facilitate secure, immutable data exchange among stakeholders, paving the way for seamless collaboration and unparalleled transparency.

**AI**

AI service that brings together the knowledge and achievements of the Fujitsu Group's 124000 employees. We provide a wide range of AI capabilities such as generative AI, image recognition, and automated machine learning in a one-stop solution to help customers solve their business problems.

In particular, we have a diverse lineup of generative AI, including "Takane," a Japanese-enhanced LLM for specialized businesses. We provide omnidirectional generative AI services by combining LLM with environments that best meet customer needs, such as cloud environments and private environments.

**Professional Services**

We provide technology and business consulting services to maximize the value of data and AI.

Supporting you in solving your business challenges through speedy hypothesis verifications.